

DATE: May 1, 2020

TO: Tim Ryan – WY/3

FROM: Wade Strickland – WY/3

*Dean F. Strickland for WY/3*

SUBJECT: WQBEL addendum with new *E. coli* limits for facilities which disinfect following revisions to ch. NR 210, Wis. Adm. Code

On May 1, 2020, revisions to chs. NR 102 and NR 210, Wis. Adm. Code became effective which replace fecal coliform limits with new *Escherichia coli* (*E. coli*) limits for protection of recreational uses. Section NR 210.06(2)(a)1, Wis. Adm. Code, includes two limits which must be included in permits for facilities which are required to disinfect:

1. The geometric mean of *E. coli* bacteria in effluent samples collected in any calendar month may not exceed 126 counts/100 mL.
2. No more than 10 percent of *E. coli* bacteria samples collected in any calendar month may exceed 410 counts/100 mL.

*E. coli* monitoring is recommended at the same frequency that fecal coliform monitoring is required in the current permit. If a permittee collects less than 10 sample results per month, the 410 counts/100 mL limit will effectively function as a daily maximum limit. Any additional monitoring beyond what is required by the permit must also be reported on the DMR as required in the standard requirements section of the permit.

These limits will be required during the currently applied disinfection season. The recent rule revisions do not alter current recreational periods and required disinfection seasons.

#### **Interim Limit**

If there is no effluent *E. coli* data available at the time of permit reissuance to determine if these limits are currently met or if data exists that suggests that the new limitations are not readily attainable, the permit will include a compliance schedule to meet these limits. During the compliance schedule, an interim limit applies to prevent back-sliding from the current level of disinfection during the compliance schedule period. Therefore, the current **fecal coliform limit shall be included in the reissued permit as an interim limit of 400 counts/100 mL as a monthly geometric mean**. Any weekly geometric mean limit which was included in the current permit for expression of limits purposes does not need to be included in the permit as an interim limit.

#### **Facilities currently required to disinfect year-round because of proximity to a drinking water intake (s. NR 210.06(1)(b), Wis. Adm. Code):**

Because the *E. coli* limits listed in NR 210.06(2)(a)1, Wis. Adm. Code, are set for protection of recreational uses and not drinking water supply, these *E. coli* limits do not necessarily need to be applied year-round. However, either *E. coli* or fecal coliform bacteria limits are needed year-round in order to ensure that there is no reduction from the current level of disinfection needed to protect the public drinking water source.

In accordance with s. NR 210.06(2)(a)2, Wis. Adm. Code, outside of the recreational season, bacteria limits may either be set equal to the previous fecal coliform limits or the listed *E. coli* limits. Therefore, the facility can select one of the two possible sets of permit limits:

- *E. coli* limits as listed above during the disinfection season and a fecal coliform limit of 400 counts/100 mL as a monthly geometric mean during the rest of the year. Any fecal coliform weekly geometric mean limit which was included in the previous permit for expression of limits purposes does not need to be included in the reissued permit.
- *E. coli* limits as listed above apply year-round.

**Conclusions:**

In summary, the following limits are recommended in permits issued or reissued after May 1, 2020.

For all facilities required to disinfect to protect recreational uses under s. NR 210.06(1), Wis. Adm. Code:

- Fecal coliform interim limit of 400 count/100 mL as a monthly geometric mean during the disinfection season
- At the end of the compliance schedule, *E. coli* limits of:
  - 126 count/100 mL as a monthly geometric mean during the disinfection season
  - No more than 10% of *E. coli* bacteria samples collected in any calendar month may exceed 410 count/100 mL during the disinfection season.

In addition, facilities that are currently required to disinfect year-round because of proximity to a drinking water intake will also have a final limit outside of the recreational season of either:

- 126 count/100 mL *E. coli* as a monthly geometric mean, or
- 400 count/100 mL fecal coliform as a monthly geometric mean

If there are any questions or comments, please contact Diane Figiel at (608) 264-6274 or [Diane.Figiel@wisconsin.gov](mailto:Diane.Figiel@wisconsin.gov).

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